



Name: _____

Mr. Tiénou-Gustafson & Mr. Bielmeier

Geometry, Period _____

Due Date: Tue, 24 Feb 2015 Failure to show all work will result in LaSalle.

HW106 - 45-45-90 triangles

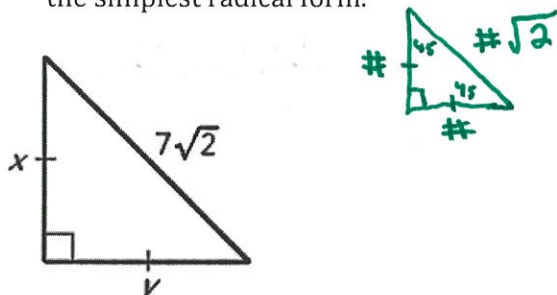
Form A

**Geometry
Homework**

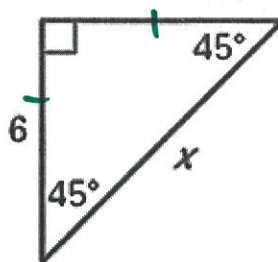
1. Simplify: $\frac{5}{\sqrt{2}} =$

2. Simplify: $\frac{6}{\sqrt{2}} =$

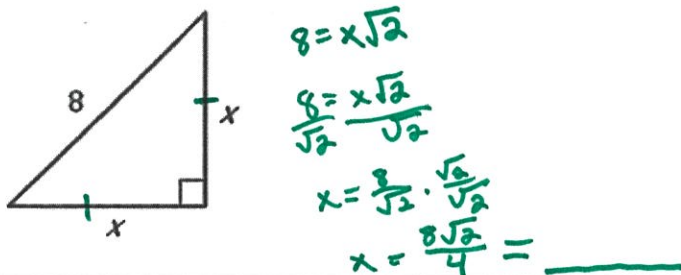
3. Find the value of each variable. Write answers in the simplest radical form.



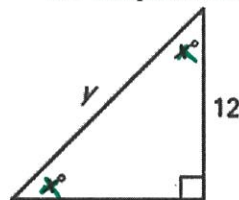
4. Find the value of each variable. Write answers in the simplest radical form.



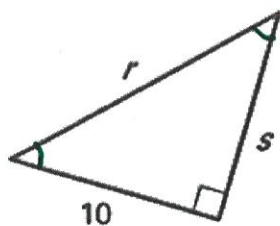
5. Find the value of each variable. Write answers in the simplest radical form.



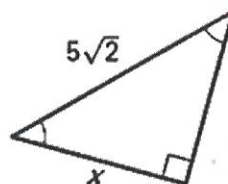
6. Find the value of each variable. Write answers in the simplest radical form.



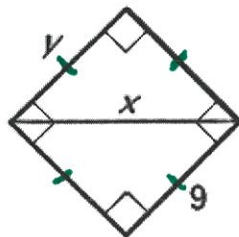
7. Find the value of each variable. Write answers in the simplest radical form.



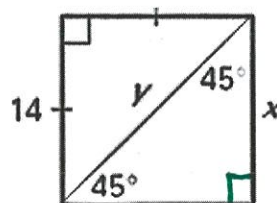
8. Find the value of each variable. Write answers in the simplest radical form.



9. Find the value of each variable. Write answers in the simplest radical form.



10. Find the value of each variable. Write answers in the simplest radical form.



Use the points (x_1, y_1) (x_2, y_2) $(-121, 18)$ and $(12, -19)$ for the next three questions:

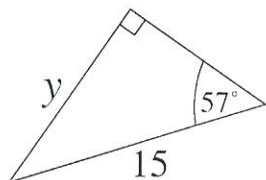
11. Find the distance between the points.

12. Write an equation for the line that connects the two points.

13. Determine the the coordinate of the midpoint of the line.

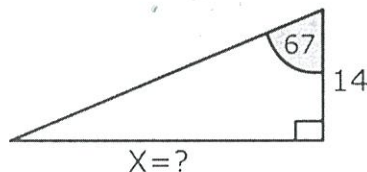
14. Solve for side y.

Soh Cah Toa



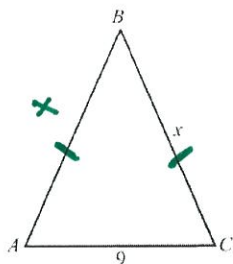
15. Solve for x.

Soh Cah Toa



16.

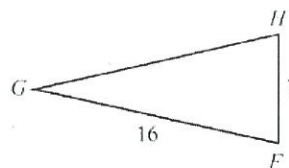
4. In the figure below, $\triangle ABC$ has a perimeter of 29 inches, \overline{AC} is 9 inches long, and $\overline{AB} \cong \overline{BC}$. Which of the following is the value of x, in inches?



- F. 9
G. 10
H. 11
J. 12
K. 13

17.

5. Isosceles triangle $\triangle FGH$ is shown below, where measurements are given in centimeters. Which of the following could be the perimeter of $\triangle FGH$, in centimeters?

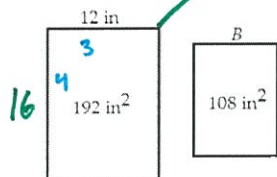


- A. 23
B. 32
C. 39
D. 44
E. 48

18.

The two rectangles below are similar.

$$A = l \cdot w$$



$$192 = 12 \cdot w$$

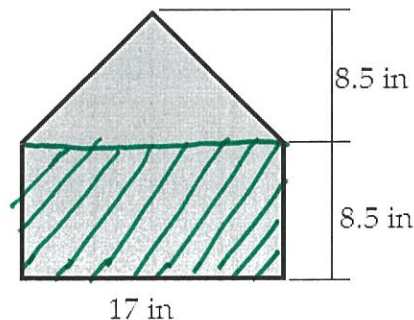
$$w = 16$$

$$108 = 3 \cdot 4 \cdot x$$

How long is side B?

- A. 9 in
B. 6.75 in
C. 6 in
D. 3.375 in

19. A regulation home plate from a baseball game is shown below.



What is the area of home plate to the nearest hundredth?